

## **REMARKS**

### **STATUS OF THE CLAIMS**

In accordance with the foregoing, claims 1-4, 6-7, 9-10, 12, 14, 18 and 20 have been amended to improve form and without change in substance. Claims 1-20 are pending and under consideration.

No new matter is being presented, and approval of the amended claims is respectfully requested.

### **PREMATURE FINAL REJECTION (MPEP 706.07-706.07(e))**

Claim 20 is no longer rejected under 35 U.S.C. §103(a), but is currently rejected under 35 U.S.C. §101. This new ground of rejection was not necessitated by the amendments to claim 20 filed June 16, 2005 and, thus, the finality of this rejection is premature. Therefore, withdrawal of the finality of the rejection is respectfully requested.

Accordingly, the claim amendments submitted herein should be entered as a matter of right.

### **REJECTION OF CLAIM 20 UNDER 35 U.S.C. §101**

At page 2, item 3, of the Action, claim 20 is rejected as being directed to non-statutory subject matter, since it is drawn to a “program” *per se*.

Claim 20 is amended herein to be directed to statutory subject matter. Thus, the rejection is respectfully traversed and should be withdrawn.

### **REJECTION OF CLAIMS 1 AND 18-19 UNDER 35 U.S.C. §102(e) AS BEING ANTICIPATED BY EPSTEIN (U.S. PATENT NO. 8,645,356)**

The rejections of claims 1 and 18-19 are respectfully traversed and reconsideration is requested.

The Examiner states that Epstein discloses a sound signal analyzing part calculating a feature value by conducting an acoustic process for each segment, of a sound signal section, to be a recognition unit with respect to an inputted sound signal, and a matching part including a voice signal model and a DTMF signal model, matching the *feature value* inputted from the sound signal analyzing part with both the voice signal model and the DTMF signal model, as recited in claim 1 for example.

Applicant respectfully disagrees.

Epstein discloses a method for processing DTMF signals in a natural language

understanding (NLU) system. The system includes an IVR unit 115 that can process received audio data by distinguishing between a human voice and DTMF audio data. Upon receiving the audio data, the IVR unit 115 time stamps the data and transfers the time-stamped speech audio to the speech recognition system 120 and the time-stamped DTMF audio to the DTMF converter 140 for further processing. (See column 6, lines 7-24) Thereafter, the collator 125 reassembles text from the speech recognition system 120 and the DTMF converter 140, using the time stamps associated with each text word.

In contrast, the present invention includes a sound signal analyzing part conducting an acoustic process for each segment of a sound signal, thereby calculating a *feature value*. The *feature value* is matched with both the voice signal model and the DTMF signal model.

Thus, the present invention does not require time-stamping the audio data and transferring the speech audio to a speech recognition system and the DTMF audio to a DTMF converter, as required by Epstein. In fact, the present invention does not even require distinguishing whether the sound signal is a DTMF or a voice signal.

Thus, it is respectfully submitted that claim 1, as filed and as well as now amended, patentably distinguishes over the prior art.

Similarly, claim 18 recites “calculating a feature value by conducting an acoustic process for each segment of the sound signal”. Thus, it is respectfully submitted that claim 18, as filed and as well as now amended, also patentably distinguishes over the prior art.

Claim 19 depends from claim 18 and inherits the patentable recitations thereof. Thus, it is respectfully submitted that claim 19 patentably distinguishes over the prior art.

#### REJECTION OF CLAIMS 2-3, 5-6, 8 AND 17 FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER EPSTEIN IN VIEW OF SEWALL ET AL. (U.S. PATENT NO. 6,708,146)

Claims 2-3, 5-6, 8 and 17 depend from claim 1 and inherit the patentable recitations thereof. As noted above, claim 1 patentably distinguishes over Epstein. Further, it is submitted that Sewall et al. does not teach or suggest the features of claim 1.

Thus, it is respectfully submitted that claims 2-3, 5-6, 8 and 17 patentably distinguish over the prior art.

#### REJECTION OF CLAIMS 4 AND 7 FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER EPSTEIN IN VIEW OF SEWALL AND FURTHER IN VIEW OF LARSEN (IEEE PUBLICATION)

Claims 4 and 7 depend from claim 1 and inherit the patentable recitations thereof. As noted above, claim 1 patentably distinguishes over Epstein. Further, it is submitted that neither Sewall et al. nor Larsen, alone or in combination, teaches or suggests the features of claim 1.

Thus, it is respectfully submitted that claims 4 and 7 patentably distinguish over the prior art.

REJECTION OF CLAIMS 9-16 FOR OBVIOUSNESS UNDER 35 U.S.C. §103(a) AS BEING UNPATENTABLE OVER EPSTEIN IN VIEW OF LARSEN

Claims 9-16 depend from claim 1 and inherit that patentable recitations thereof. As noted above, claim 1 patentably distinguishes over Epstein. Further, it is submitted that Larsen does not teach or suggest the features of claim 1.

Thus, it is respectfully submitted that claims 9-16 patentably distinguish over the prior art.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all claims, as originally filed and as now pending, patentably distinguish over the prior art. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: Dec. 19, 2005

By: H. J. Staas  
H. J. Staas  
Registration No. 22,010

1201 New York Ave, N.W., Suite 700  
Washington, D.C. 20005  
Telephone: (202) 434-1500  
Facsimile: (202) 434-1501